

Instructional Plan/Learning Activities

Content: Science

Instructional Plan	Understanding	Know	Skills	MLR
<p>1. Hook: Present animated cellular activity video.</p> <p>Learning Activity (Graphic Organizer, Cooperative Learning, Technology):</p> <ul style="list-style-type: none"> -Apple cutting activity. -Present different maps; topographic, road, climate, political, ect. -Students will be split into groups of four during the collaborative activity. -Quickie questions. <p>Artifact: Wikispace: Students will be required to create a post that describes the differences between resources.</p>	<p>Students will understand that the different forms of art can be used to present similar conceptual ideas and content.</p>	<p>Students will know the different uses for a globe versus a map, and when one is more appropriate than the other.</p>	<p>Explain: Describe the similarities and differences between map and globe resources on a wikispace.</p>	<p>A. 2 Models Students use models to examine a variety of real-world phenomena from the physical setting, the living environment, and the technological world and compare advantages and disadvantages of various models.</p> <p><i>a. Compare different types of models that can be used to represent the same thing (including models of chemical reactions, motion, or cells) in order to match the purpose and complexity of a model to its use.</i></p> <p><i>b. Propose changes to models and explain how those changes may better reflect the real thing.</i></p>
<p>2. Hook: Play an example Pod Cast to the class which displays two different views of art. Present the question: "how has</p>	<p>Students will understand that scientific discoveries have led to the advancement and creation of 21st century art.</p>	<p>Students will know some of the ways art has affected individuals differently.</p>	<p>Interpret: Tell a story that discusses the experiences of others as a result of their interaction with art.</p>	<p>C. 3 Science, Technology, and Society Students identify and describe the role of science and technology in addressing personal</p>

art influenced your life?" Brain storming activity and sharing with one class mate.

Learning Activity
(Graphic Organizer, Cooperative Learning, Technology):

- Review of previous lesson.
- Questions presented to look for areas of misconception.
- Come up with definition of 21st century art.
- Individual then into group discussion of life experiences.
- Introduction to pod casting.
- Present students with a rubric.

Artifact:

Pod Cast: Students will be asked to create their own pod cast recordings.

These recordings will be the students interpretation of their fellow classmates experiences.

and societal challenges.

- a. Describe how science and technology can help address societal challenges including population, natural hazards, sustainability, personal health and safety, and environmental quality.*
- b. Identify personal choices that can either positively or negatively impact society including population, ecosystem sustainability, personal health, and environmental quality.*

3.	Students will	Students will know	Perspective:	C. The Scientific and Technological Enterprise: Students understand the history and nature
Hook: Show pictures and other examples of art work that was created in the earlier	understand that scientific discoveries have led to the advancement and creation of 21st	how to correctly identify art work from different time periods.	Compare artwork that was created during different time periods.	

periods of time. century art.

Explicitly demonstrate how many magnificent structures were created without the tools we have today.

Learning Activity
(Graphic Organizer, Cooperative Learning, Technology):

- Review previous lesson.
- Lecture and video on the history of art.
- Present examples.
- Present proof of how science and art have been and still are intertwined.

Artifact:

Blog - Wikispace:
All students will be required to write a blog entry that discusses the history of art through the ages, and must have at least to links to other informative websites.

of scientific knowledge and technology, the processes of inquiry and technological design, and the impacts science and technology have on society and the environment.

<p>4. Hook: Play short video clip of natural spring thaw and water run-off. Provide background information.</p> <p>Learning Activity (Graphic Organizer,</p>	<p>Students will understand that scientific discoveries have led to the advancement and creation of 21st century art.</p>	<p>Students will know different strategies and ideas of how to improve an experimental design.</p>	<p>Apply: Suggest changes and alterations to the original lab procedures and experiment setup in order to create a more proficient laboratory experiment.</p>
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B. 2 Skills and Traits of Technological Design
Students use a systematic process, tools, equipment, and a variety of materials to design and produce a

Cooperative
Learning,
Technology):

- Review previous lesson.
- Discuss purpose of lab.
- Have students make hypothesis.
- Lab safety
- Have students complete lab activity.
- Go over laboratory report guidelines.
- Present students with a rubric and example lab report.
- Discuss the expectations about providing feedback and experimental design improvements.

Artifact:

Wikispace: Students will be writing a formal lab report after completing the lab exercise. They will be required to post this write-up to their wiki page, and will also be providing feedback on their classmates work.

solution or product to meet a specified need, using established criteria.

- b. Design a solution or product.*
- c. Communicate a proposed design using drawings and simple models.*
- d. Implement a proposed design.*
- e. Evaluate a completed design or product.*
- f. Suggest improvements for their own and others' designs and try out proposed modifications.*
- g. Explain the design process including the stages of problem identification, solution design, implementation, and evaluation.*

5.	Students will	Students will know	Empathy: Consider	B. 1 Skills and Traits of Scientific Inquiry
Hook: Play video on constructive criticism. Display how to give it and how to receive it in a	understand that the different forms of art can be used to present similar conceptual ideas and	that art and science have influenced all people, cultures, and societies differently.	how other cultures and even individual people are influenced differently from	Students plan, conduct, analyze data from, and

positive and effective manner.

content.

their experiences with art.

communicate results of investigations, including simple experiments.

Learning Activity
(Graphic Organizer, Cooperative Learning, Technology):

- Review previous lesson.
- Discussion/lecture about different cultures.
- Present students with an example of a finished self assessment.
- Group activity with self assessments.

Artifact:

Wikispace - Blog:

All students will be asked to post their self assessment to the class wiki. They will also be responsible for reading at least two of their classmates self-assessment posts and then create a reflection blog entry.

f. Communicate, critique, and analyze their own scientific work and the work of other students.

6.
Hook: Present the opening of lesson with "old school" science and technology examples.

Students will understand that scientific discoveries have led to the advancement and creation of 21st century art.

Students will know how science has played a role in the advancement of artwork, and why art has effected the ways science can be taught.

Self Knowledge: Realize that art has effected the way science is presented, and realize how scientific understanding has enabled the creation of many new forms of art.

C. 3 Science, Technology, and Society

Students identify and describe the role of science and technology in addressing personal and societal challenges.

Learning Activity
(Graphic Organizer,

Cooperative
Learning,
Technology):

- Review all of the previous lesson in the unit.
- Group discussion, groups of 4-5.
- Class discussion of the overall aspect, important and key ideas of the unit.
- Have students make predictions of how art will be in 50 years.
- Present students with a rubric.

Artifact:

Blog: Students will be required to complete a final writing piece and post it on to their blogs. This writing should describe how art and science have both influenced each other.

c. Identify factors that influence the development and use of science and technology.